

4TH GRADE

POWER



Problems

Homework Edition

Name: _____

POWER PROBLEMS HOMEWORK

Answer each question below.

1.) A painter uses 2 gallons of white paint for 2 bedrooms, 12 pints of pale blue paint for one bathroom, and 18 quarts of yellow paint for the exterior of a house. How many ounces of paint did the painter use in all?	2.) Becca's friend Jackie drove over to play at 3:26 pm. Jackie left at 9:12. How long was Jackie at Becca's house?
3.) Mr. Jefferson is creating a relay race for his son's birthday party. Point A to B of the race is $\frac{1}{2}$ mile run. At point B guests of the party need to jump thru tires. The length of the tires is 27 feet. Then students need to skip for 31 yards to get to point C. At point C students need to run around an orange cone 10 times and then sit down. One jog around the cone is 360 inches. How many yards long is the entire relay race?	4.) Julio uses a smartwatch to track how long he runs. If he runs for 15 minutes on Monday and 20 minutes on Tuesday, what is the total number of seconds he ran?

Name: _____

POWER PROBLEMS HOMEWORK 4.MD.7

Answer each question below.

1.) What is the measurement of angle B if angle C is 32 degrees and angle A is $\frac{1}{2}$ of angle C?	2.) On a standard clock, what is the angle measurement of the distance that the hour hand moves in two hours?
3.) Make line segments from the center of the pentagon to each vertex. What is the measurement of each of the central angles that you have created?	4.) You cut a pie into eight pieces. What is the measurement in degrees of the tip of each piece of pie?

Name: _____

POWER PROBLEMS HOMEWORK 4.MD.6

Answer each question below.

1.) Marcy and Marc are working on a math problem. Marcy says that the measurement of angle A is 55 degrees; Marcy says that the measurement of angle B is 125 degrees. Who is correct?	2.) Draw an angle that has a measurement of 75 degrees. Then draw an adjacent angle that is 40 degrees.
3.) Draw an angle that has a measurement of 61 degrees.	4.) What is the sum of angles A, B, and C?

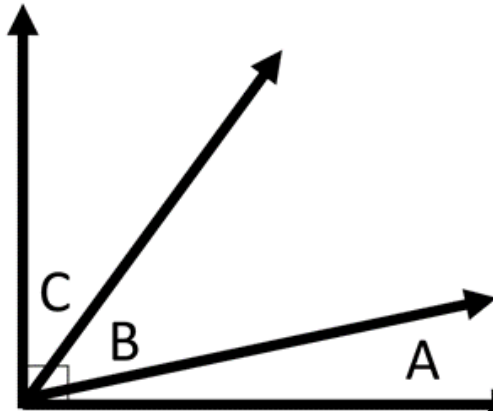
Name: _____



POWER PROBLEMS
HOMEWORK 4.MD.7

Answer each question below.

1.) What is the measurement of angle B if angle C is 32 degrees and angle A is $\frac{1}{2}$ of angle C?



2.) On a standard clock, what is the angle measurement of the distance that the hour hand moves in two hours?

3.) Make line segments from the center of the pentagon to each vertex. What is the measurement of each of the central angles that you have created?



4.) You cut a pie into eight pieces. What is the measurement in degrees of the tip of each piece of pie?

POWER Problems HD

What is included?

- 28 conceptual based math questions
- Quality prompts and word problems that promote rigorous thinking
- 4 questions per standard
- Each standard is formatted to one page
- Easy prep
- Answer keys

WHAT ARE POWER PROBLEMS?



PURPOSEFUL - These problems are meant to keep students focused, while strengthening initiative and perseverance.



OPPORTUNITIES - These prompts can be used in a variety of ways. P.O.W.E.R problems can be used to introduce a lesson, spiral review, or as formative assessments.

WITH



ENGAGEMENT - Power Problems are real word applicable and designed to hook students with interest and presentation. The complexity of problems promotes problem solving skills.



RIGOR - Tasks are specifically designed to challenge students and assess conceptual understanding of curriculum versus procedural understanding. Students will need to apply more than just a "formula."

WHY USE POWER PROBLEMS?

BUILD STAMINA WITHIN
YOUR STUDENTS



MORE THAN JUST A COOKIE CUTTER TEXTBOOK APPROACH

- P.O.W.E.R problems are designed to challenge your students with their open ended presentation. Majority of problems that come from textbooks and workbooks assess procedural understanding of curriculum. Some textbooks even provide step by step instructions where the textbook is thinking for the students and taking away that "productive struggle" for children. When we rob students of that event, we rob them of their ability to reason, problem solve, and see beyond a standard algorithm. P.O.W.E.R problems are meant to show students that there are different ways to answer one question in math. With these tasks students take ownership and are part of the problem solving process versus filling in blanks in a textbook.

HOW TO USE POWER PROBLEMS

YOUR KIDS. YOUR
CHOICE. FLEXIBILITY.



TO INTRODUCE A LESSON - P.O.W.E.R problems can be used to introduce a new skill. In this case your students will experience a "productive struggle." Their problem solving skills and prior knowledge will kick in. Often times most of my students will have the incorrect answer or no answer at all. I then have someone explain their method/reasoning and allow my students to critique their peer's answer. This makes for great accountable talk discussions. If I see that most students do not have an answer I will assist the class in getting to a specific point and then allow them to finish independently.



SPIRAL REVIEW - Avoid your students forgetting standards by using P.O.W.E.R problems to spiral review previously taught lessons.



FORMATIVE ASSESSMENTS - You can use these problems to assess mastery and levels of understanding.